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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,774	01/10/2002	Arun Sharma	MBHB 02-013	7559
20306 75	590 10/07/2003		EXAM	INER
MCDONNELL BOEHNEN HULBERT & BERGHOFF 300 SOUTH WACKER DRIVE			MCKELVEY, TERRY ALAN	
SUITE 3200	ACKLINDRIVE		ART UNIT	PAPER NUMBER
CHICAGO, IL	CHICAGO, IL 60606			$\overline{\alpha}$
			DATE MAILED: 10/07/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
•	10/043,774	SHARMA ET AL.			
Office Action Summary	Examiner	Art Unit			
•	Terry A. McKelvey	1636			
The MAILING DATE of this communication app		<u></u>			
Period f r Reply		•			
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, - Any reply received by the Office later than three months after the mailing earmed patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be timer within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on					
, <u> </u>	is action is non-final.				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4)⊠ Claim(s) <u>1-24</u> is/are pending in the application					
4a) Of the above claim(s) is/are withdrav	vn from consideration.				
5) Claim(s) is/are allowed.					
6) Claim(s) is/are rejected.					
7) Claim(s) is/are objected to.	•				
<ul> <li>8) ☐ Claim(s) <u>1-24</u> are subject to restriction and/or ∈</li> <li>Application Papers</li> </ul>	election requirement.				
·· <u> </u>					
<ul><li>9) The specification is objected to by the Examiner</li><li>10) The drawing(s) filed on is/are: a) accept</li></ul>		minor			
	•				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.					
If approved, corrected drawings are required in reply to this Office action.					
12) The oath or declaration is objected to by the Examiner.					
Priority under 35 U.S.C. §§ 119 and 120					
13) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a	n)-(d) or (f).			
a) ☐ All b) ☐ Some * c) ☐ None of:					
1. ☐ Certified copies of the priority documents	s have been received.				
2. Certified copies of the priority documents		on No			
Copies of the certified copies of the prior application from the International Bur     See the attached detailed Office action for a list of the certified copies of the prior application.	ity documents have been receive reau (PCT Rule 17.2(a)).	ed in this National Stage			
14) Acknowledgment is made of a claim for domestic	·				
a) The translation of the foreign language pro	÷ •				
15) Acknowledgment is made of a claim for domestine Attachment(s)	c priority under 35 U.S.C. 99 120	rand/UFTZT.			
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal F	/ (PTO-413) Paper No(s) Patent Application (PTO-152)			
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## DETAILED ACTION

## Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- Claims 1-8 and 12-13, drawn to nucleic acid, probe, expression construct, and cell, classified in class 536, subclasses 23.5 and 24.3 and class 435, subclasses 320.1, 325, 243, and 419.
- II. Claims 9-11, drawn to method of screening a compound for modulating human hiwi gene in cells expressing human hiwi, classified in class 435, subclass 6.
- III. Claims 14-16, drawn to preparations comprising hiwi gene product, classified in class 530, subclass 350.
- IV. Claims 17-20, drawn to method for identifying a compound that modulates hiwi gene expression, classified in class 435, subclass 29.
- V. Claims 21-24, drawn to method for increasing retention of cells, classified in class 435, subclass 375.

The inventions are distinct, each from the other because of the following reasons:

The nucleic acids, etc of Group I and the preparations of Group II are chemically, biologically, and functionally distinct

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from each other and thus one does not render the other obvious. The product of each group is not needed to produce the products of the other groups (each of which can be isolated from cells or organisms, made synthetically, and/or are self-replicating without the need for the isolated products of the other groups). Therefore, the inventions of the groups are capable of supporting separate patents.

Inventions of Groups II and IV-V are biologically and functionally different and distinct from each other and thus one does not render the other obvious. The methods of Groups II and IV-V comprise steps which are not required for or present in the methods of the other groups: transforming a host cell with an expression construct (Group II), identifying compounds that decrease cell proliferation or increase the percentage of cells undergoing apoptosis (Group IV), and culturing bone marrow or peripheral blood culture (Group V). The end result of the methods are different: identification of a compound that modulates human hiwi gene in cells expressing hiwi (Group I), identification of a compound that induces hiwi gene expression in cells (Group IV), and increased retention of stem cells (Group V). Thus, the operation, function and effects of these different methods are different and distinct from each other.

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Therefore, the inventions of these different, distinct groups are capable of supporting separate patents.

Inventions of Group I and Group II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product as claimed can be used in a materially different process, for overexpression of hiwi gene product to make cell preparations containing hiwi gene product.

Except for the specific relationships described above, the inventions of Groups I and III and Groups II and IV-V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different products of Groups I and III are not used in or made by the methods of Groups II and IV-V.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by

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their different classification, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

## Conclusion

Certain papers related to this application may be submitted to Art Unit 1636 by facsimile transmission. The faxing of such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 C.F.R. § 1.6(d)). The official fax telephone number for the Group is 703-872-9306. NOTE: If Applicant does submit a paper by fax, the original signed copy should be retained by applicant or applicant's representative. NO

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DUPLICATE COPIES SHOULD BE SUBMITTED so as to avoid the processing of duplicate papers in the Office.

Any inquiry concerning rejections or other major issues in this communication or earlier communications from the examiner should be directed to Terry A. McKelvey whose telephone number is (703) 305-7213. The examiner can normally be reached on Monday through Friday, except for Wednesdays, from about 7:30 AM to about 6:00 PM. A phone message left at this number will be responded to as soon as possible (i.e., shortly after the examiner returns to his office).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Remy Yucel can be reached on (703) 305-1998.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Terry A. McKelvey, Ph.D.

Jem a Mile

Primary Examiner Art Unit 1636

October 1, 2003